

Listing of Claims:

Please amend the claims as follows. This Listing of Claims will replace all prior versions and listings of claims in the application.

CLAIMS

1. – 73. (Canceled).

74. (Currently Amended) An electroluminescent device which comprises:

- (i) a first electrode which functions as an anode;
- (ii) a second electrode which functions as a cathode; and,
- (iii) between said first and second electrodes, the following layers (a) to (c) in sequence:
 - (a) a layer of a hole transport material;
 - (b) a first layer comprising a first electroluminescent metal complex or a first electroluminescent organometallic complex having a band gap;
 - (c) a layer comprising a second electroluminescent metal complex or a second electroluminescent organometallic complex having a band gap, wherein the band gap of the second complex is larger than that of the first complex and wherein the highest occupied molecular orbital (HOMO) of the ~~second~~ first complex is higher, and the lowest ~~occupied~~ unoccupied molecular orbital (~~LUMO~~) (LUMO) of the ~~second~~ first complex is lower, than those of the ~~first~~ second complex, and wherein the layer of second complex has a thickness of about 10 nm or less;

- (d) a second layer comprising the first complex; and,
- (e) a layer of an electron transport material.

75. (Canceled)

76. (Previously Presented) The device of claim 74, wherein the first electrode/anode is an ITO layer.

77. (Previously Presented) The device of claim 74, wherein the hole transport material comprises N,N'-diphenyl-N,N'-bis-(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine (TPD), HTM-1, TPTE, α -NPB or mTADATA.

78. (Previously Presented) The device of claim 74, wherein the first electroluminescent metal complex or first electroluminescent organometallic complex emits light in the red, green or yellow regions of the spectrum.

79. (Previously Presented) The device of claim 74, wherein the first electroluminescent metal complex or first electroluminescent organometallic complex is a complex including Eu, Tb or Dy.

80. (Previously Presented) The device of claim 74, wherein the first electroluminescent complex or first electroluminescent organometallic complex is Eu(TMHD)₃OPNP or Eu(DBM)₃OPNP.

81. (Previously Presented) The device of claim 74, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex emits light in the ultraviolet region of the spectrum.

82. (Previously Presented) The device of claim 74, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex is a complex including Gd or Ce.

83. (Currently Amended) The device of claim 74, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex is $\text{Gd}(\text{DBM})_3\text{Phen}$ wherein Phen designates the neutral ligand phenanthroline.

84. (Canceled)

85. (Previously Presented) The device of claim 74, wherein said second electrode comprises a material selected from aluminum, calcium, lithium, and silver/magnesium alloys.

86. (Previously Presented) The device of claim 74, wherein the electron transport layer comprises a metal quinolate.

87. (Currently Amended) The device of claim 74, wherein the electron transport material layer comprises aluminum quinolate or lithium quinolate.

88. (Currently Amended) An electroluminescent device which comprises:

- (i) a first electrode which functions as an anode;
- (ii) a second electrode which functions as a cathode; and,
- (iii) between said first and second electrodes, the following layers (a) to (c) in sequence:

- (a) a layer of a hole transport material;

- (b) a composite electroluminescent layer comprising in sequence alternating sub-layers of a first electroluminescent metal complex or first organometallic complex having a band gap and a second electroluminescent metal complex or second organometallic complex having a band gap, the composite layer including at least two sub-layers of the second complex and at least three sub-layers of the first complex, wherein the band gap of the second complex is larger than that of the first complex and wherein the highest occupied molecular orbital (HOMO) of the ~~second~~ first complex is higher, and the lowest ~~occupied~~ unoccupied molecular orbital (~~LOMO~~) (LUMO) of the ~~second~~ first complex is lower, than those of the first ~~second~~ complex, and wherein each layer of the second complex has a thickness of about 10 nm or less; and,

- (c) a layer of an electron transport material.

89. (Previously Presented) The device of claim 88, wherein each of the sub-layers of first or second complex located between the first and the last sub-layers of the first complex has a thickness of about 10 nm.

90. (Previously Presented) The device of claim 88, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex emits light in the ultraviolet region of the spectrum.

91. (Currently Amended) An electroluminescent device which comprises:

- a. a first electrode which functions as an anode;
- b. a second electrode which functions as a cathode; and,
- c. between said first and second electrodes, the following layers (a) to (g) in sequence:

(a) a layer of a hole transport material;

(b) a first layer comprising a first electroluminescent metal complex or a first electroluminescent organometallic complex having a band gap, such first layer having a thickness of about 23 nm;

(c) a layer comprising a second electroluminescent metal complex or a second electroluminescent organometallic complex having a band gap, wherein the band gap of the second complex is larger than that of the first complex, and wherein the highest occupied molecular orbital (HOMO) of the ~~second~~ first complex is higher, and the lowest ~~occupied~~ unoccupied molecular orbital (~~LOMO~~) (LUMO) of the ~~second~~ first complex is lower, than those of

the ~~first~~ second complex, and wherein this layer has a thickness of about 10 nm;

(d) a second layer comprising the first complex, this layer having a thickness of about 10 nm;

(e) a second layer comprising the second complex, this layer having a thickness of about 10 nm;

(f) a third layer comprising the first complex, this layer having a thickness of about 23 nm, and,

(g) a layer of an electron transport material.

92. (Previously Presented) The device of claim 91, wherein the first electrode/anode is an ITO layer.

93. (Previously Presented) The device of claim 91, wherein the hole transport material comprises N,N'-diphenyl-N,N'-bis-(3-methylphenyl)-1,1'-biphenyl-4,4'-diamine (TPD), HTM-1, TPTE, α -NPB or mTADATA.

94. (Previously Presented) The device of claim 91, wherein the first electroluminescent metal complex or first electroluminescent organometallic complex emits light in the red, green or yellow regions of the spectrum.

95. (Previously Presented) The device of claim 91, wherein the first electroluminescent metal complex or first electroluminescent organometallic complex is a complex including Eu, Tb or Dy.

96. (Previously Presented) The device of claim 91, wherein the first electroluminescent complex or first electroluminescent organometallic complex is $\text{Eu(TMHD)}_3\text{OPNP}$ or $\text{Eu(DBM)}_3\text{OPNP}$.

97. (Previously Presented) The device of claim 91, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex emits light in the ultraviolet region of the spectrum.

98. (Previously Presented) The device of claim 91, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex is a complex including Gd or Ce.

99. (Currently Amended) The device of claim 91, wherein the second electroluminescent metal complex or second electroluminescent organometallic complex is $\text{Gd(DBM)}_3\text{Phen}$ wherein Phen designates the neutral ligand phenanthroline.

100. (Previously Presented) The device of claim 91, wherein said second electrode comprises a material selected from aluminum, calcium, lithium, and silver/magnesium alloys.

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Amendment and Response

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101. (Previously Presented) The device of claim 91, wherein the electron transport layer comprises a metal quinolate.

102. (Currently Amended) The device of claim 91, wherein the electron transport material layer comprises aluminum quinolate or lithium quinolate.

103. (Canceled)